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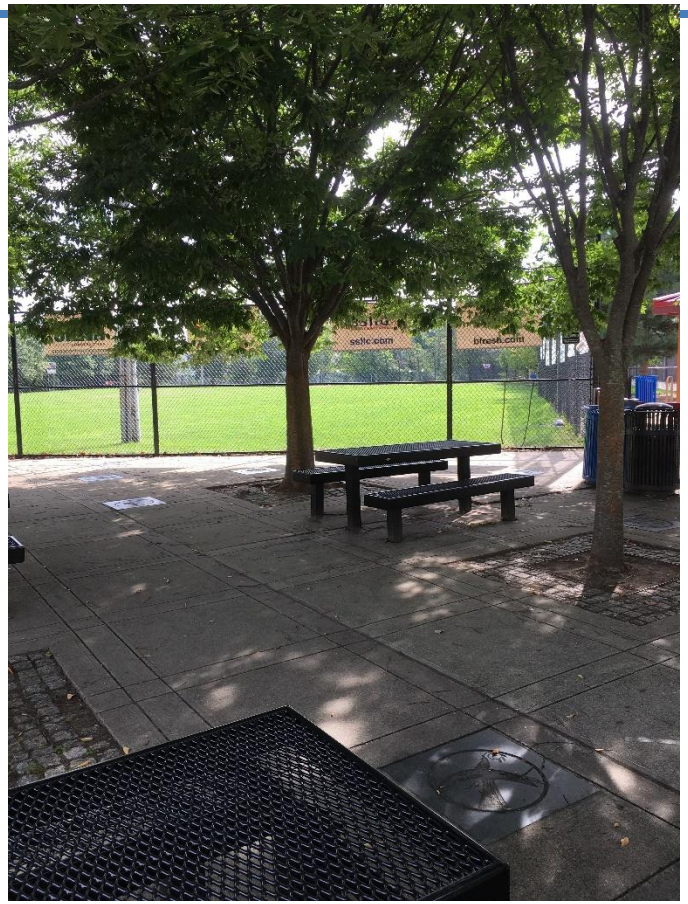
Conway Park

Environmental Conditions Update Meeting
December 5, 2018

Weston & Sampson

Meeting Agenda

- Opening Remarks
- Site History
- Assessment Process and Regulatory Overview
- Findings and Draft Data Presentation
- Next Steps
- Questions



Opening Remarks

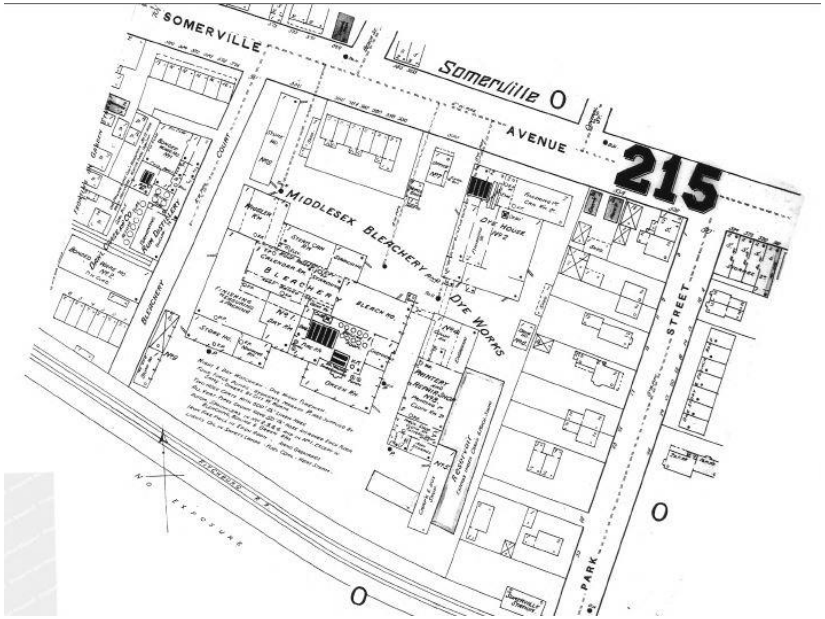
- Update on Environmental Conditions
- Focus on the Data Collected Since March
- Introductions
  - City Representatives
  - Weston & Sampson
  - MassDEP

Project History

- Desire to fix the retaining wall
  - Geotechnical, structural Investigation
  - Environmental samples for soil disposal
  - Plus preliminary data to support park design
- Elevated lead and PCBs (in one sample)
- Supplemental investigation in March
- Resulted in notification to MassDEP and EPA
- Presented those data to the public in March, 2018

Site History

- 1800s Bleachery and Dye works established
- Operated until early 30s
- Field discussed in early-mid 40s
- Renovated in 1976 and in 2001

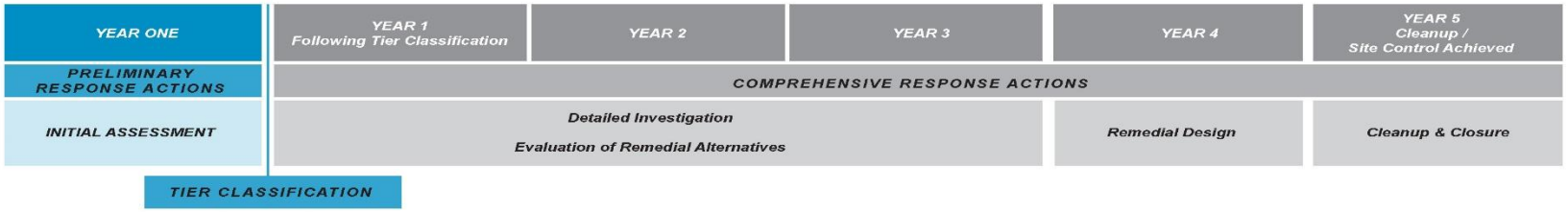


Assessment Process

- Site is regulated by MassDEP
  - Mass. Contingency Plan
  - LSP Oversight
- And by EPA
  - Toxic Substance Control Act
  - PCB sites
  - Approval process

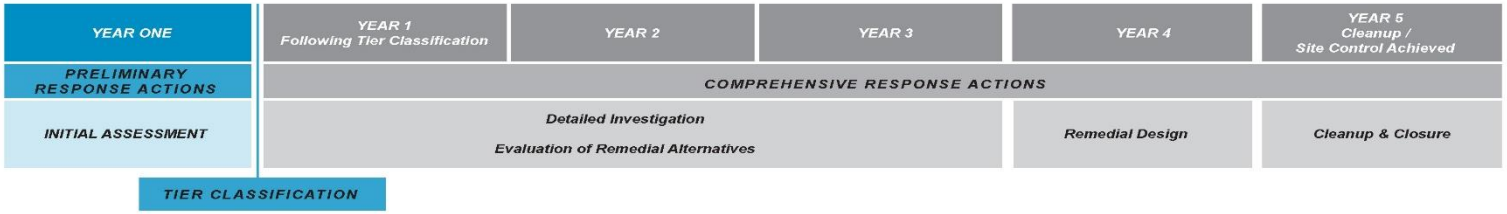
Timeline

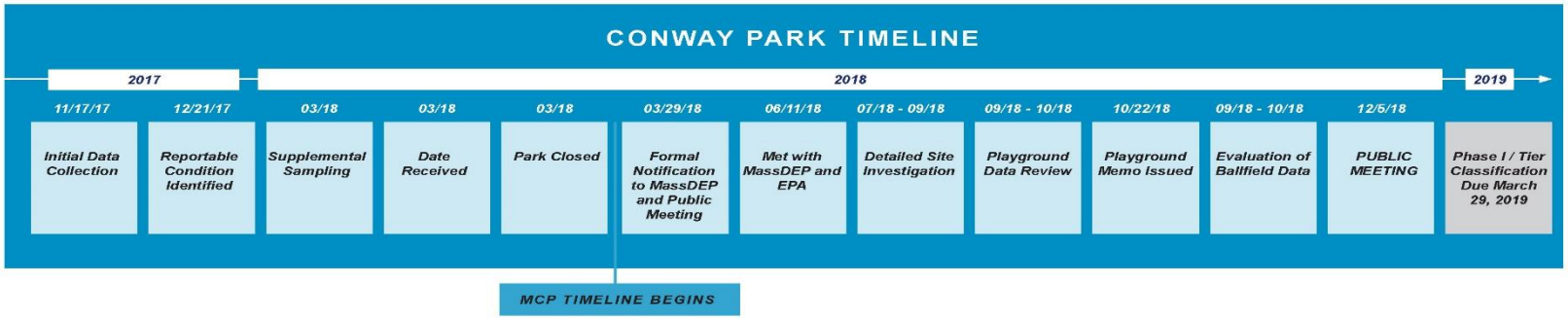
TYPICAL MASSACHUSETTS CONTINGENCY PLAN CLEANUP TIMELINE



Timeline

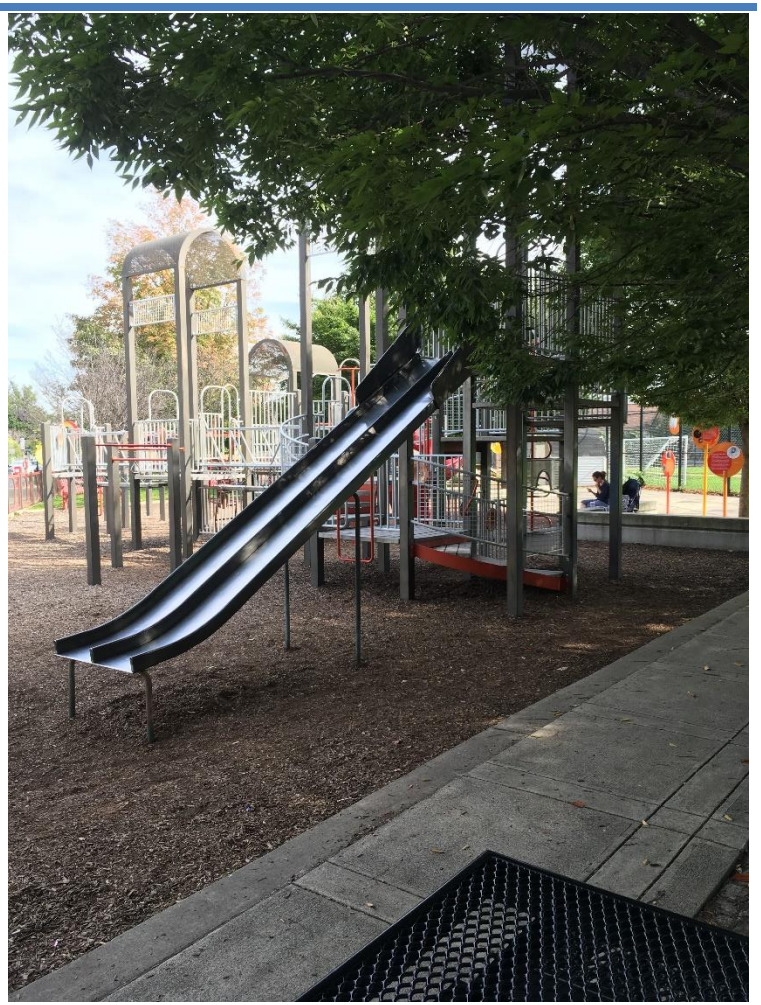
TYPICAL MASSACHUSETTS CONTINGENCY PLAN CLEANUP TIMELINE





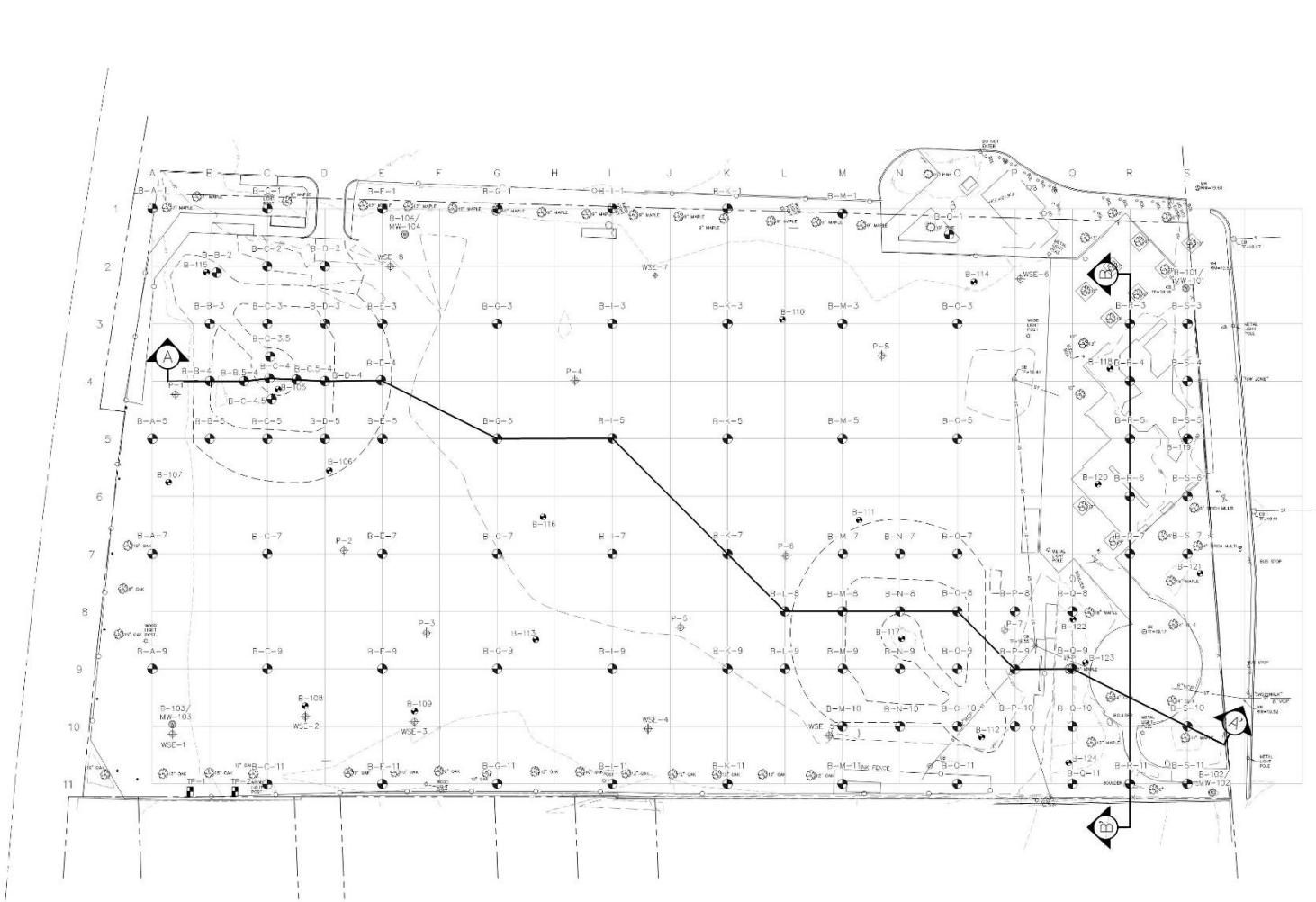
Findings and Draft Data Review

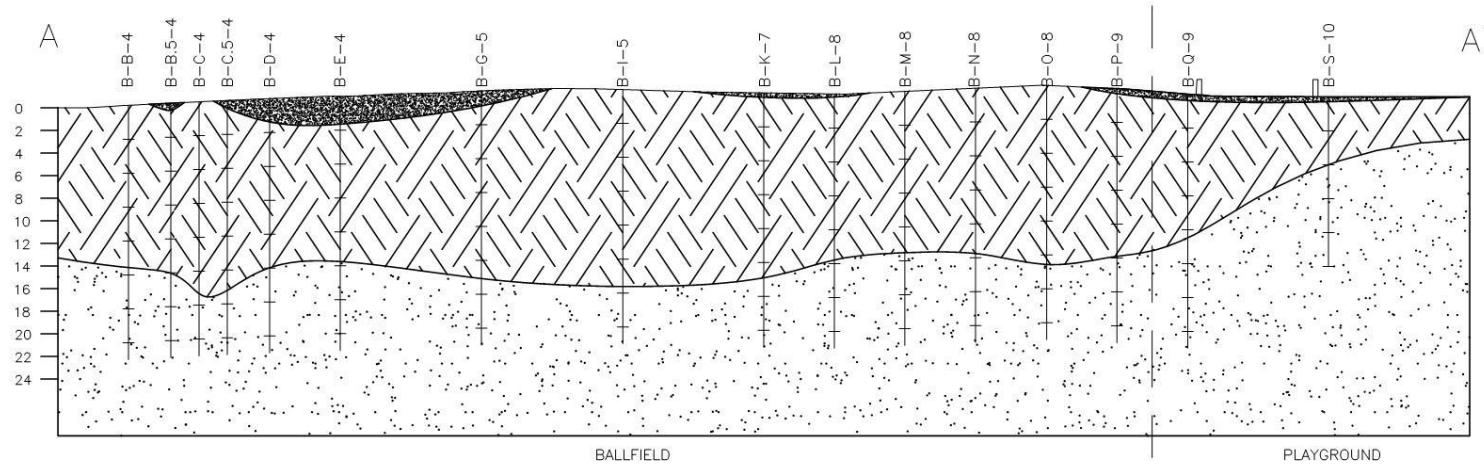
- Playground
  - Northwest portion of playground
  - Southeastern portion of playground
- Ballfield
  - PCB Data Review



Field Summary

- Approximately 110 sampling locations
- Collected over 700 soil samples
  - Depth Integrated
  - Surface – 0-0.5 feet
  - 1- and 2- foot increments
- 4 groundwater wells
- 7 concrete samples


EXISTING CONDITIONS LEGEND:
TREE CANOPY
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB/BUSH
SIGN
UTILITY POLE
LIGHT POLE
HYDRANT
WATER VALVE
MANHOLE
CATCHBASIN
METAL POST/BOLLARD
CONCRETE MONUMENT
CHAIN LINKED FENCE
OVERHEAD UTILITY WIRES
GAS LINE
WATER LINE & WATER VALVE
SANITARY SEWER
STORM SEWER
CURBING
UNDERGROUND ELECTRIC
CONDUIT
UNDER DRAIN
UNDERGROUND TELEPHONE
STONE WALL
PROPERTY BOUNDARY
ELEVATION CONTOUR
SOIL BORING/MONITORING WELL LEGEND:
SOIL BORING (OCTOBER/NOVEMBER 2017)
SOIL BORING (MARCH 2018)
MONITORING WELL (MARCH 2018)
SOIL BORING (JULY 2018)
TEST PITS (OCTOBER 2017)
GRAPHIC SCALE
FIGURE 2
CITY OF SOMERVILLE, MASSACHUSETTS
CONWAY PARK
SITE PLAN
NOVEMBER 2018
SCALE: 1" = 20'
Weston & Sampson
Weston & Sampson Engineers, Inc.
5 Centennial Drive, Peabody, MA 01960



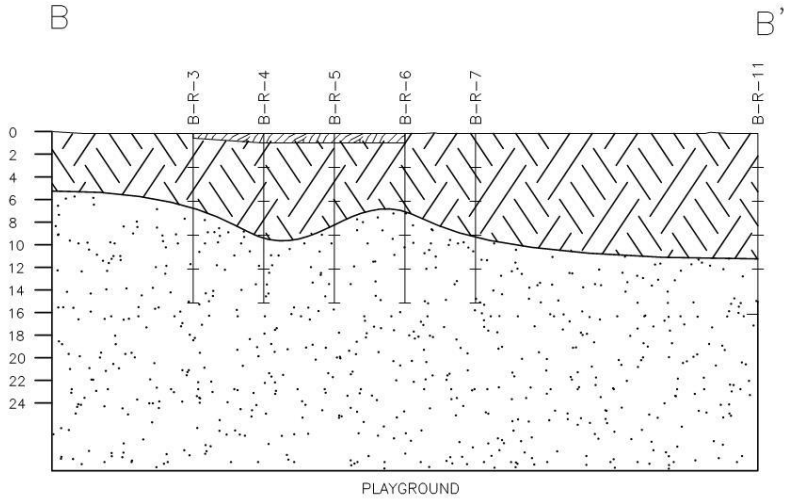
LEGEND

TOPSOIL

WOOD CHIPS

FILL

SAND



HORIZONTAL SCALE

40 20 0 40 80

SCALE: 1"=40'

VERTICAL SCALE: 1"=10'

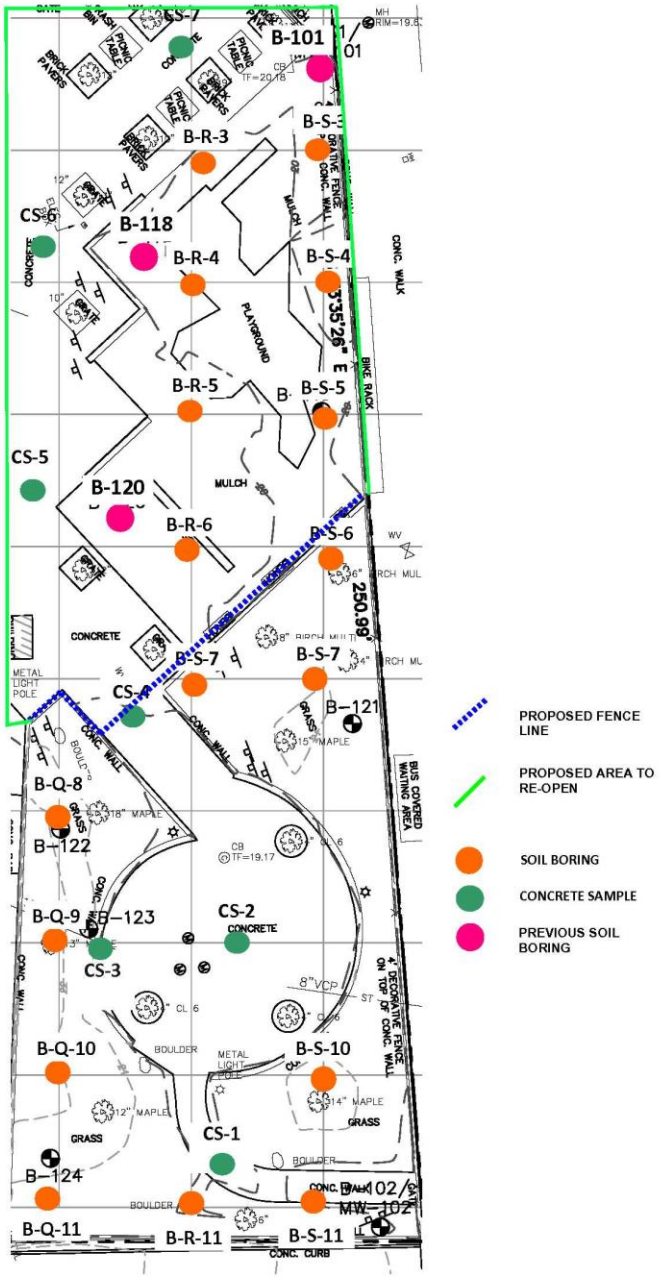
FIGURE 4					
SOMERVILLE, MA CONWAY PARK					
CROSS SECTION A-A' AND B-B'					
DESIGNED BY:	MDM	CHECKED BY:	JRS	DATE:	AUGUST 2018

Weston & Sampson

P:\MA\Somerville MA\Conway Park\CAD\Conway Park Cross Sections rev2.dwg

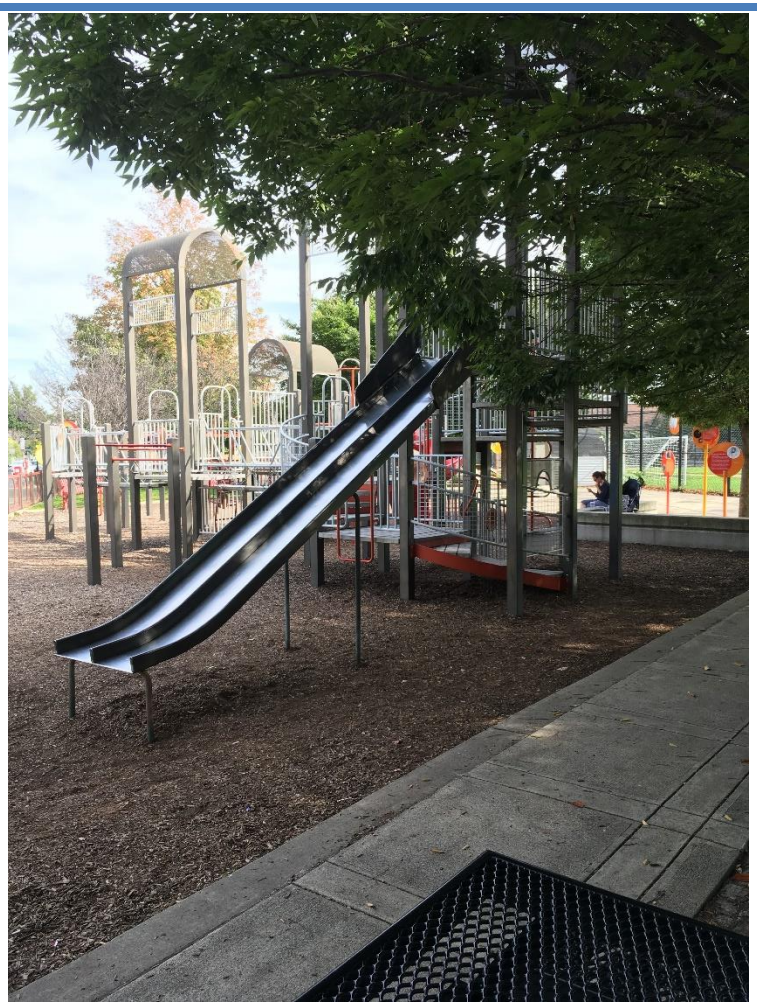
- Northwest portion
  - PCB Concentrations non detect or below 1 ppm
  - Lead – 1 sample met standard, rest below.

Parameter	Units	Min Conc.	Max. Conc.	No. of samples	EPC-Average All data	No. of samples	EPC-Average Surficial	MCP Method 1 Standard
Total PCBs	mg/kg	ND (<0.081)	0.27	39	0.07	20	0.09	1
Lead	mg/kg	4.2	200	35	63.82	18	67.91	200



Playground Summary

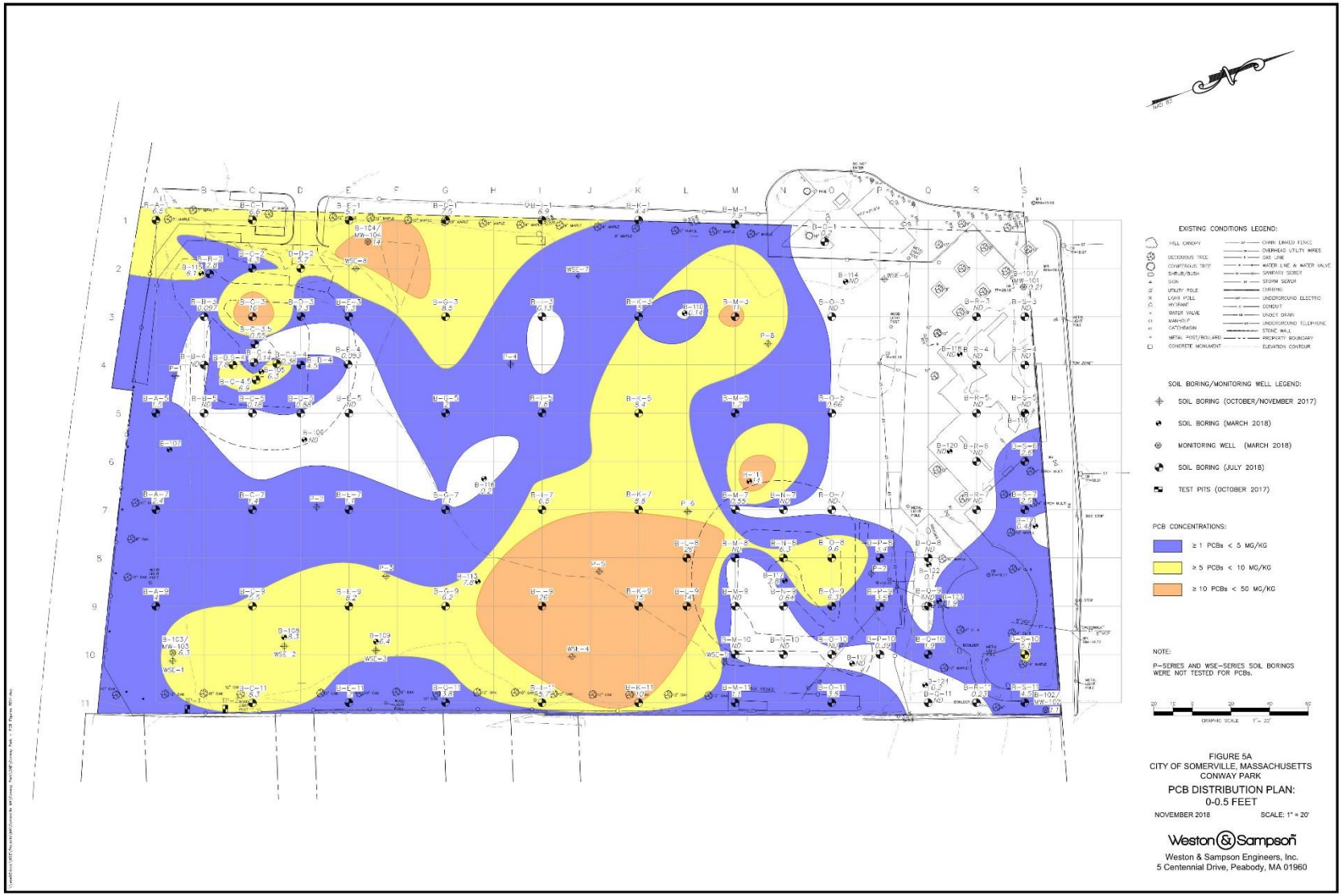
- Recommended Reopening the Northwest portion
- Keep Southeast Portion closed for now



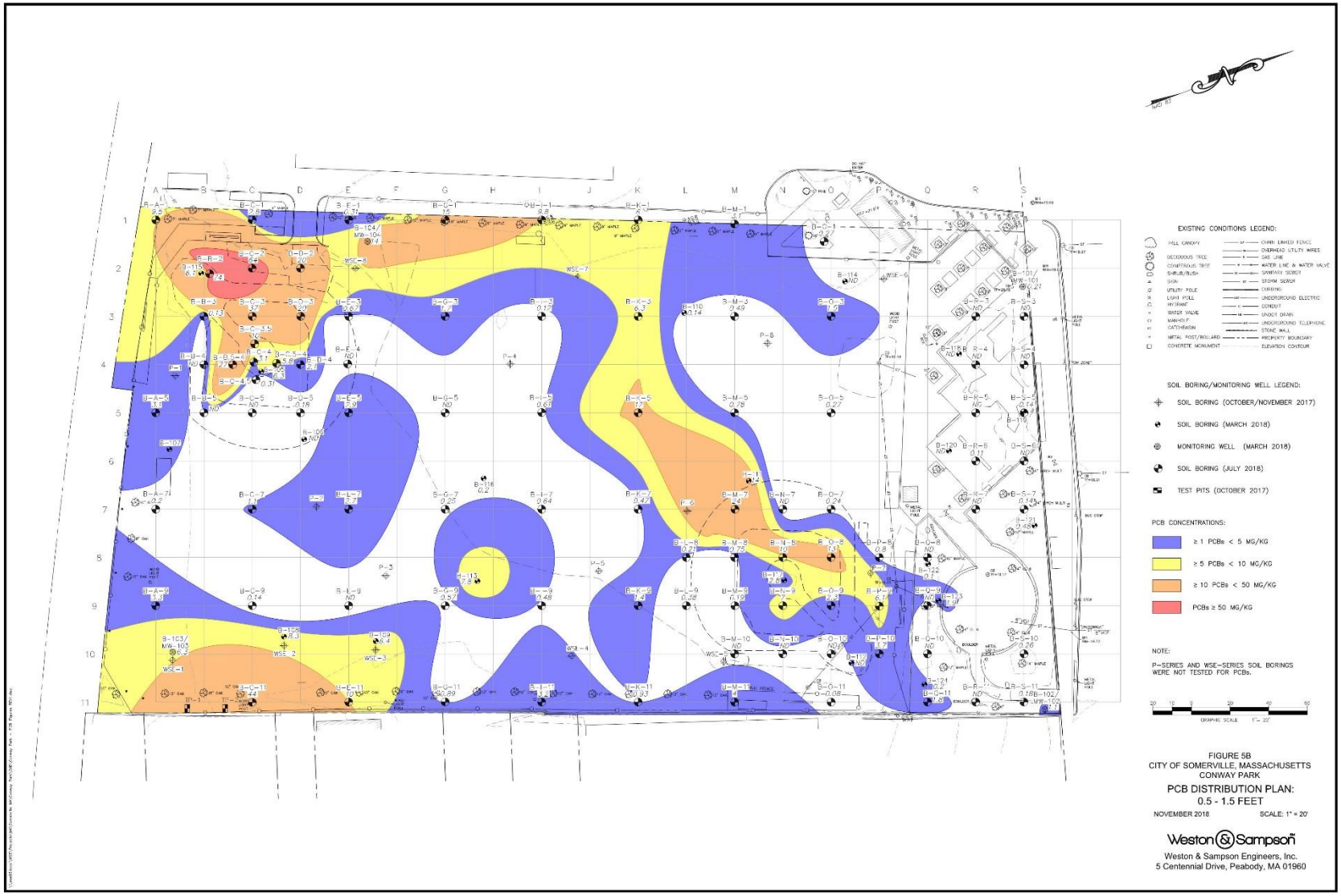
Ballfield Summary

- PCB concentrations decrease with depth
- 0-0.5 feet (surficial soil) not as impacted
- Highest concentrations >7.5 feet below grade

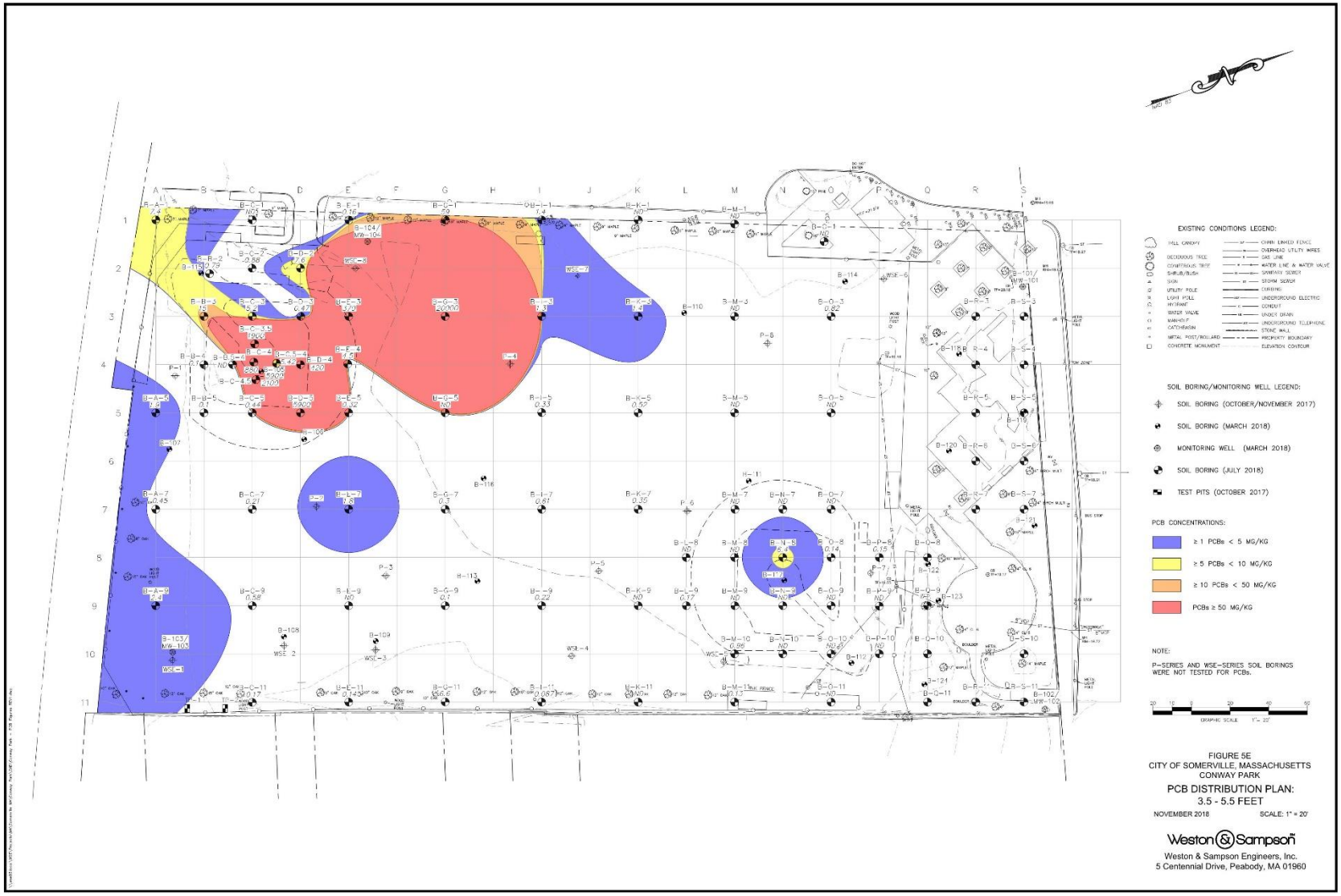
Depth Below Ground Surface	Non-Detect < 1 mg/kg	>/=1, < 5 mg/kg	>/=5, < 10 mg/kg	>/=10, < 50 mg/kg	> 50 mg/kg	Max Concentration
0 – 0.5 feet	24	22	21	7	0	26 mg/kg
0.5 – 1.5 feet	38	15	7	12	2	74 mg/kg
1.5 – 2.5 feet	38	19	4	11	2	1,200 mg/kg
2.5 – 3.5 feet	42	17	4	7	4	12,000 mg/kg
3.5 – 5.5 feet	53	7	5	1	8	20,000 mg/kg
5.5 – 7.5 feet	57*	7	1	6	3	2,600 mg/kg
7.5 – 9.5 feet	60*	2	1	1	1	40,000 mg/kg
9.5 – 11.5 feet	57*	3	1	1	0	49 mg/kg



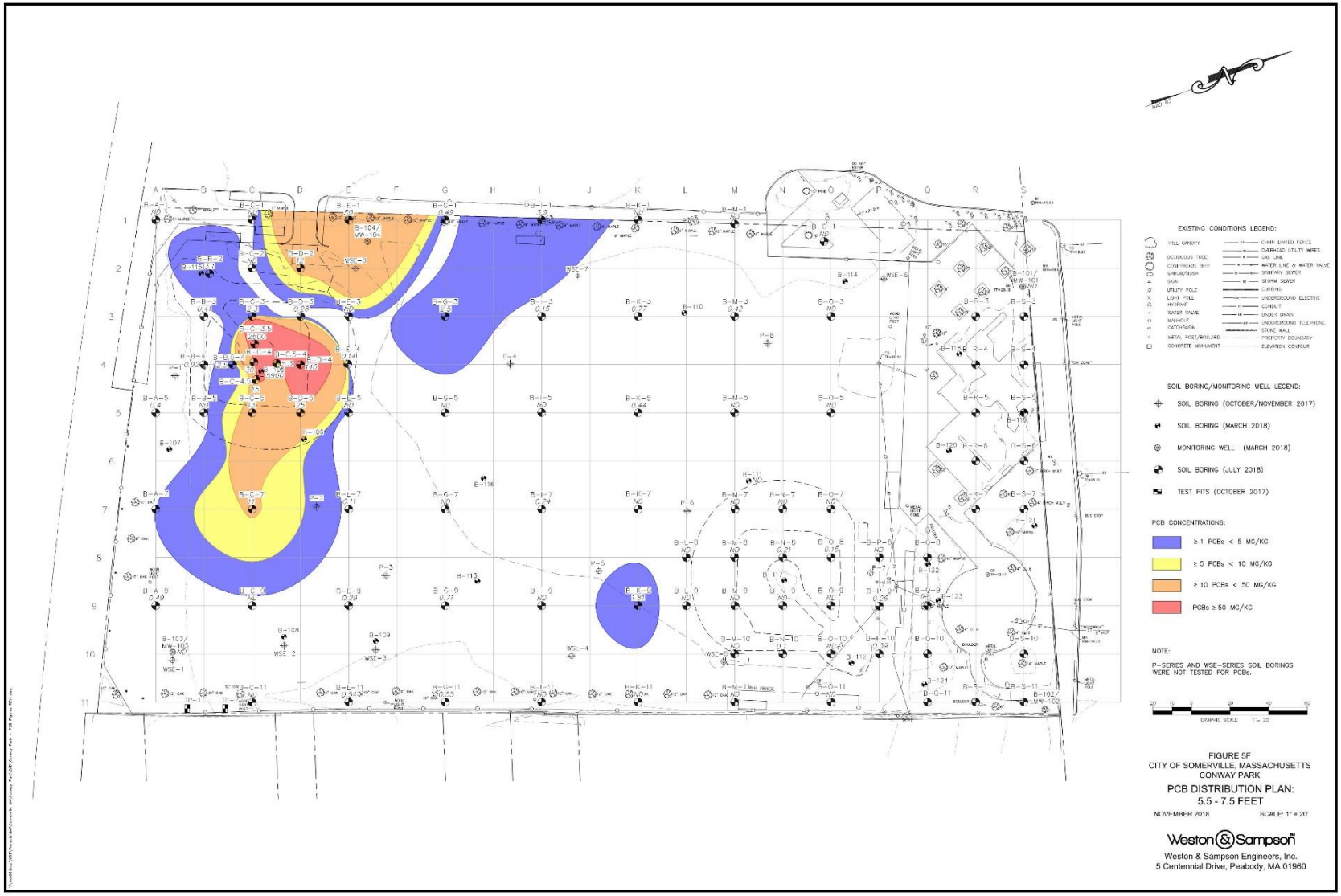
0 – 0.5 feet below grade



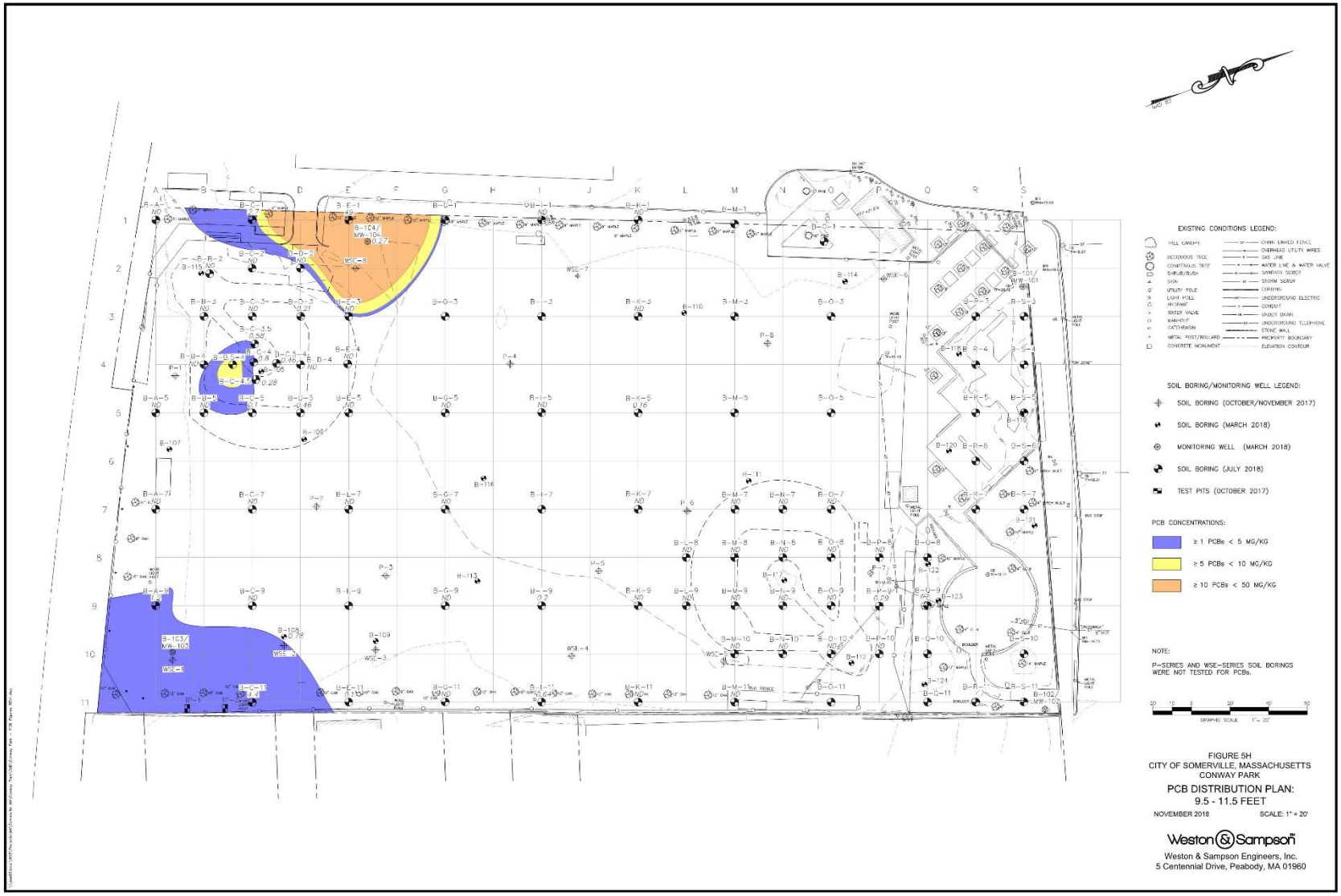
0.5 – 1.5 feet below grade



3.5 – 5.5 feet below grade



5.5 – 7.5 feet below grade



9.5 – 11.5 feet below grade

Next Steps

- Received approval from City for next steps
- Evaluate Southwest Corner
  - Geophysical evaluation
  - Are there buried sources?
- Remedial Planning & Conceptual Design
  - Development of Remedial Options
  - Dovetail Remediation with Field design
  - Approval from EPA and DEP
  - Each Option has different costs

Summary

- Reviewed the Site History and Regulatory Overview
- Discussed why a portion of the playground can be opened
- Reviewed the data:
  - Highest concentrations at depth and in the southwest corner
- Discussed Next Steps
- Questions

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